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Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources

Report of the Secretary-General

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INTRODUCTION

1. This report reviews progress in the implementation of the objectives set out in chapter 17 of Agenda 21 1/ (Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources) since the United Nations Conference on Environment and Development (UNCED) in June 1992 and presents a set of recommendations for action. The report and its addendum were prepared by the Subcommittee on Oceans and Coastal Areas of the Administrative Committee on Coordination (ACC) as task manager for chapter 17 of Agenda 21, in consultation with the United Nations Secretariat, in accordance with arrangements agreed on by the ACC Inter-Agency Committee on Sustainable Development. The Subcommittee, which has held three sessions since April 1994, is composed of the following 14 organizations: Division for Ocean Affairs and the Law of the Sea of the Office of Legal Affairs of the United Nations Secretariat, United Nations Conference on Trade and Development (UNCTAD), United Nations Development Programme (UNDP), United Nations Environment Programme (UNEP), United Nations Centre for Human Settlements (Habitat) (UNCHS), Food and Agriculture Organization of the United Nations (FAO), Intergovernmental Oceanographic Commission (IOC) of the United Nations Educational, Scientific and Cultural Organization (UNESCO), World Health Organization (WHO), World Bank, International Telecommunication Union (ITU), World Meteorological Organization (WMO), International Maritime Organization (IMO), United Nations Industrial Development Organization (UNIDO), International Atomic Energy Agency (IAEA).

I. CURRENT STATE AND MAIN TRENDS

2. UNCED recognized that "The marine environment - including the oceans and all seas and adjacent coastal areas - forms an integrated whole that is an essential component of the global life-support system and a positive asset that presents opportunities for sustainable development". 2/ Coastal areas are home to 60 per cent of the world's population. Oceans, which cover 71 per cent of the Earth's surface, contain a vast proportion of the world's biodiversity. They are a major sink for atmospheric carbon and for the toxins and chemical substances (whether natural or man-made) carried by continental effluents and through the atmosphere, as well as a powerful regulator of the world's climate. The importance attached to oceans is further related to four significant factors:

(a) The high density of human population in the coastal zone, often within a narrow band of about 60 km, which creates pressure on a potentially fragile environment and its ecosystems and resources, both coastal and marine;

(b) The progressive degradation of marine and coastal natural resources under the combined effect of excessive rates of use and pollution;

(c) An ever-increasing awareness that the ocean is a basic governing force for life on this planet, particularly for small island countries, and that better understanding of its physical and biological mechanisms, including their

interaction with atmospheric processes, is essential to decision-making aiming at sustainable development;

(d) The recognition that a precautionary approach to ocean development and management is necessary to take into account current uncertainties regarding ocean (and related atmospheric) processes and to protect the options for development available to future generations.

3. Over the past decade there have been rapid and revolutionary changes in political boundaries, in the realignment and refinement of States' rights and duties and in the creation of new legal regimes. The main decision points in this process are represented by the adoption in 1982 of the United Nations Convention on the Law of the Sea (1982 Convention) 3/ and its entry into force in 1994; as of 1 January 1996 the Convention had been ratified by 83 States parties. 4/ The Convention establishes the rights and duties of nations for marine environmental protection and sustainable use and the development of marine resources and provides for dispute resolution.

4. In addition, very important complementary international law and policy were laid down in 1995: the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (United Nations, August 1995); the Code of Conduct for Responsible Fisheries (FAO, October 1995); the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (UNEP, November 1995); and the Jakarta Mandate on Coastal and Marine Biodiversity adopted at the second session of the Conference of Parties to the Convention on Biological Diversity (UNEP, November 1995). Each international agreement and instrument duly recognizes that it has a role in strengthening the implementation of the 1982 Convention and in furthering the objectives of Agenda 21.

5. The full consequences of these changes, in terms of both benefits and problems, have yet to be adequately recognized, however. The expectations associated with the extension of national jurisdiction have only partially been met: concrete knowledge of ocean processes and resources is still incomplete and sparse; short-term economic interests often work against the kind of long-term planning and investment required to extract real benefits.

6. While some relatively new resources, such as most deep-sea mineral resources, ocean energy and some non-conventional fishery resources, may offer opportunities, the sustainability of their development is questionable. The most important traditional ocean resources, including coastal environments and conventional fishery resources, are over-used and require improved management. In many cases, the unrestricted use of technology, the growing demand for goods and services from the ocean, uncontrolled population growth and continuous migration to coastal areas have led to the depletion of living resources and the degradation of the coastal and marine environment as well as of the economic conditions of some of the major sectors exploiting the ocean.

A. Constraints to implementation

7. Chapter 17 of Agenda 21 called for governmental action, with the assistance of the specialized agencies of the United Nations system when required and with the active participation of the people and sectors involved and that of the non-governmental organizations, in order to: (a) improve the use and conservation of coastal resources through integrated management and sustainable development of coastal areas, including exclusive economic zones (programme area A); (b) increase marine environmental protection from land-based and sea-based sources of pollution (programme area B); (c) promote sustainable use and conservation of marine living resources in the high seas (programme area C); promote sustainable use and conservation of marine living resources under national jurisdiction (programme area D); (e) address critical uncertainties for the management of the marine environment and climate change (programme area E); (f) strengthen international and regional cooperation and coordination (programme area F); and (g) promote sustainable development of small islands (programme area G).

8. Without appropriate action by Governments and the relevant economic sectors to improve information systems, research support and programmes, institutions and legal frameworks, the present situation can only worsen. Constraints to progress can be found in the fact that:

(a) Oceans and coastal areas are a finite economic asset yet to be fully understood by Governments, as is also the consequent need for their prudent and rational exploitation, and given commensurable priority in national development plans;

(b) Concerns of Member States, while often based upon similar scientific and socio-economic premises, are voiced by different governmental representatives in different intergovernmental forums and in different ways, depending upon the constituencies, with the result that there is a lack of coherent policy within the United Nations system (at global, regional and national levels);

(c) Most countries have not established national coordination mechanisms that could enhance implementation of chapter 17 of Agenda 21;

(d) The concerns of the private sector and many poor communities are driven by short-term economic priorities that tend to give low priority to resource conservation and the needs of future generations;

(e) Resource constraints, particularly but not only in developing countries, often limit the amount of attention and financial support Governments can devote to scientific research and its application to national policy options;

(f) There has been insufficient awareness of the need to identify and reduce "uncertainties" in human knowledge and their potential consequences, including the consequences for the health of exposed human populations, and thus of the need for a precautionary approach to management and development decisions;

(g) United Nations system efforts with respect to chapter 17 of Agenda 21 need to be based on a coordinated approach embracing scientific, technological and socio-economic factors.

B. Selected achievements 5/

9. Despite these difficulties, significant progress has been made since UNCED in the following areas:

(a) In relation to programme area A of chapter 17, guidelines for integrated coastal area management (ICAM) have been developed for various levels of governance and implementation and are being applied by countries and financing institutions in a growing number of technical assistance projects. As part and in support of these initiatives, the relevant United Nations organizations and mechanisms have developed a cooperative programme framework for ICAM. In addition, in 1995 the Consultative Group for International Agricultural Research (CGIAR) adopted "coastal environment" as the central theme of a system-wide initiative, with the International Centre for Living Aquatic Resources Management (ICLARM) as a lead centre;

(b) In relation to programme area B, the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities was adopted in November 1995 in Washington, D.C. It will provide the basis for national and international action to reduce pollution of the oceans from land-based activities, contributing, inter alia, to: (i) improvement of coastal habitats and productivity; (ii) reduction of threats to food security and safety; (iii) reduction of hazards to human health; and (iv) increased control over coastal activities to stop and reverse the process of alteration of the coastal zone. A number of other actions can be noted, such as the 1993-1994 ban on the dumping of radioactive waste, sewage sludge and industrial waste and on incineration of toxic wastes at sea, as agreed in the 1972 Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London Convention);

(c) In relation to programme areas C and D, the legal framework for sustainable use and conservation of living aquatic resources in the oceans has been substantially improved since UNCED. First of all, the entry into force of the United Nations Convention on the Law of the Sea establishes the rights and duties of States with respect to marine environmental protection and conservation and management of resources. It also provides the basis for dispute resolution and the conclusion of further international agreements, inter alia, on high seas fisheries and those in exclusive economic zones (EEZs). Second, the legally binding Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas (the Compliance Agreement) was approved by the FAO Conference in November 1993 and has so far been signed by seven States. Third, the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks (A/50/550, annex I), which usefully complements the 1982 Convention, was adopted in August 1995 in New York and opened for signature on 4 December 1995. Fourth, the Code of

Conduct for Responsible Fisheries, which, together with the guidelines that support it, provides the guidance necessary for management and conservation of fishery resources as well as associated or dependent species and their environment, was developed by the members of FAO and approved by the FAO Conference in October 1995. The establishment of the Southern Ocean Whale Sanctuary by the International Whaling Commission (IWC) in 1994 also deserves special mention;

(d) In relation to programme area E, agreement has been reached on a development approach, strategy and time-frame for the Global Ocean Observing System (GOOS), involving many national institutions and the effective cooperation of a number of United Nations organizations (UNESCO-IOC, WMO, UNEP, FAO) and other international organizations. Several regional GOOS programmes have been initiated and there has been an increase in efforts to collect and share some critical types of data. In addition, significant progress has been made in numerous scientific domains critical to the understanding of the oceans: (i) the ability to forecast changing environmental, ocean-related conditions (flooding, cyclones, tsunamis), and the capacity to apply such forecasts through warning and protective measures has been considerably improved; (ii) the assessment of the role of oceans in the regulation of greenhouse gas concentrations, especially CO_2, has been updated; (iii) the number of case studies on the vulnerability of low-lying coastal areas and small islands to the potential impacts of climate change and sealevel rise have been completed; (iv) the impact of changing ultraviolet radiation on primary productivity of the marine environment has been assessed; and (v) the first field phase of the International Mussel Watch programme has been completed and several later phases have been initiated;

(e) In relation to programme area F, the issue of international cooperation and coordination for sustainable use of the oceans has been actively addressed in many international and regional initiatives, some of which have been reported above. The creation of the ACC Subcommittee on Oceans and Coastal Areas as a subsidiary body of the Inter-Agency Committee on Sustainable Development has facilitated and improved cooperation among bodies of the United Nations system and, apart from joint integrated reporting on progress achieved in the implementation of Agenda 21, has the potential to become a forum for joint programming. As a first step, a cooperative programme framework for integrated coastal area management is being developed. The Intergovernmental Conference to Adopt a Programme of Action for the Protection of the Marine Environment from Land-based Activities (Washington, D.C., 1995) recommended giving the United Nations Environment Programme a prominent role as the secretariat for institutional follow-up, a clearing-house mechanism and an intergovernmental forum for protection of the seas from land-based sources of pollution. GESAMP, the IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection, originally founded to advise solely on marine pollution issues, has broadened its terms of reference so that it can fully respond to the needs of its sponsoring agencies for scientific advice on all aspects of marine environmental protection and management, including ICAM. Its relevance was confirmed by the 1995 London Workshop on Environmental Science, Comprehensiveness and Consistency in Global Decisions on Ocean Issues. The Aquatic Sciences and Fisheries Information System (ASFIS), co-sponsored by the United Nations (Division for Ocean Affairs

and the Law of the Sea), UNESCO-IOC, FAO and UNEP, is responsible for the production of the Aquatic Sciences and Fisheries database (ASFA), the largest and most widely used database on fisheries and aquatic science. It is published in print as well as on CD-ROM. Also, the Conference of the Parties to the Convention on Biological Diversity, at its second session (Jakarta, November 1995), agreed on new initiatives for the conservation of marine and coastal biological diversity. At the regional level, the five United Nations regional commissions, the FAO regional fishery bodies, the UNEP regional seas coordination units and the regional groups of IOC and other organizations address sectoral and cross-sectoral issues related to oceans and marine resources. The UNEP Regional Seas Programme in particular is an important basis for action and cooperation among various institutions, although funding for this activity has been problematic;

(f) In relation to programme area G, the reports of the Secretary-General to the General Assembly at its forty-ninth and fiftieth sessions included detailed information on action taken by the United Nations system to implement the Programme of Action for the Sustainable Development of Small Island Developing States, adopted in Barbados in 1994. The concerns of these States, as related to oceans and coastal areas, are reflected in the main policy recommendations and required actions listed in sections III and IV of this report. These sections are generally relevant and even more critical for small island developing States than for States with larger continental masses.

10. In relation to all programme areas, non-governmental organizations (NGOs) have operated as partners in promoting the concepts of sustainable development and responsible fisheries and defending the views of the public or of minority groups as appropriate. Their actions have been complementary to the actions undertaken by the United Nations system. They have undertaken to raise awareness of the major issues affecting the marine environment and fisheries today, such as protection of marine mammals and endangered species; conservation of resources and the environment; training and education; by-catch and discards in fisheries; a precautionary approach to development and management; overcapitalization and governmental subsidies; consistency and compatibility between management schemes for shared resources; monitoring, control and surveillance; marine environmental protection; biodiversity; the rights and interests of small-scale entrepreneurs; international trade; and transparency and participation of people in management and resource allocation.

11. A number of non-United Nations activities have contributed to the implementation of chapter 17 of Agenda 21, e.g. the recent International Coral Reef Initiative and the 1995 London Workshop on Environmental Science, Comprehensiveness and Consistency in Global Decisions on Ocean Issues.

12. In the critical cross-sectoral area of financing, it should be noted that the Global Environment Facility (GEF), which was originally established as a pilot programme in 1991, was restructured in March 1994 into a permanent funding mechanism to provide grant and concessional funds to developing countries and countries with economies in transition. Over US$ 2 billion will be committed by participating Governments over the 1995-1998 period. While about 14 per cent of its current total resources are devoted to international water projects, this component has seen a sharp fall from US$ 127 million in the pilot phase

(1991-1994) to US$ 4 million in the post-pilot phase (1995-1998) projects. About 44 per cent of GEF resources, accounting for approximately US$ 400 million, are spent on biodiversity projects. Both components in part support the objectives of chapter 17. In addition, UNDP has developed a portfolio of over US$ 70 million for ocean and coastal management. Finally, the World Bank developed a portfolio of more than US$ 100 million in coastal management between 1989 and 1994.

C. Areas for further progress

13. Areas where progress is not as satisfactory include, inter alia: (a) the continuing decline in the abundance of many fishery resources and in the economic health of fisheries in both the developed and developing world; (b) the gap between total financial resource needs estimated at UNCED and those being mobilized; (c) the insufficient development, in many countries, of the national capacity to implement sustainable development strategies; (d) the insufficient level of implementation by Governments of existing rules, regulations, international standards and conventions as reflected in the insufficient adaptation and harmonization of national legislation and procedures and in the inefficiency of enforcement; (e) the different implementation rates between developed and developing countries; and (f) the insufficient gender perspective in all policies and programmes, in line with the Beijing Declaration and Platform for Action. 6/ These and other issues will be addressed in sections III and IV of this report.

II. LINKAGES WITH OTHER MAIN PROGRAMME AREAS OF AGENDA 21

14. Given the nature of the ocean and coastal regions and their impact on the whole of the environment, most of the issues raised in Agenda 21 can be linked in one way or another to chapter 17. Those of most obvious relevance are:

(a) Chapter 2. International cooperation to accelerate sustainable development in developing countries and related domestic policies, particularly on issues related to international trade and the environment;

(b) Chapter 3. Combating poverty, enabling coastal communities and, in particular, poor small-scale fishermen to achieve acceptable and sustainable livelihoods;

(c) Chapter 4. Changing production and consumption patterns, in particular in relation to improving fisheries management and promoting the use of fish for food (including the improved use of by-catch), but also in relation to the more general use of the coastal areas;

(d) Chapter 6. Protecting and promoting human health by reducing risks from polluted coastal waters;

(e) Chapter 7. Promoting sustainable human settlement development, in particular the integrated provision of environmental infrastructure to reduce land-based causes of coastal and ocean pollution;

(f) Chapter 9, Protection of the atmosphere, in regard to: (i) absorption of greenhouse gases; (ii) climate change and its potentially drastic effects on marine living resources; (iii) energy optimization programmes and reduction of dangerous substances in exhaust gas emissions; and (iv) reduction in the use of chlorofluorocarbons (CFCs) in at-sea and coastal ocean industries;

(g) Chapter 10, Integrated approach to the planning and management of land resources, including scientific and technological means;

(h) Chapter 15, Conservation of biological diversity because the living marine resources are an important subset of the world's biodiversity and are affected by fishing activities, aquaculture development and environmental pressures resulting from tourism and other coastal and inland developments. Fishing pressure may influence species and stock composition, as well as the population structure and life history characteristics of target species. The expansion and augmentation of fisheries through such practices as the introduction and transfer of aquatic organisms and hatchery enhancement programmes poses special threats to the maintenance of the naturally well-adapted complex of resident fish. In regard to farmed and domesticated fishery resources, there is a need to develop means to further control, conserve and manage their genetic resources for sustainable food production;

(i) Chapter 18, Protection of the quality and supply of freshwater resources because freshwater inputs through rivers into the ocean and their seasonal patterns are a determining factor of the quality and productivity of related coastal areas (estuaries, mangroves, nurseries) and maintenance of critical habitats (e.g. sea-grass beds, coral reefs). They provide essential signals for ocean species reproduction. In addition, pollution of freshwater by industry, agriculture and mining or as a consequence of urban development has strongly negative effects on the potential for tourism or aquaculture development in coastal areas.

15. Chapter 17, in particular programme areas A and E on integrated coastal area management and on critical uncertainties, respectively, are also of great relevance to small island developing States, for which the ocean represents a significant opportunity for development, a formidable challenge and a persistent threat from the perspective of global climate change and sealevel rise.

III. MAIN POLICY RECOMMENDATIONS

16. The steps to be taken that will have the necessary impact within the required time-frame are often politically difficult, potentially unpopular and require resources not always available. Nevertheless, as stated as an underlying theme of UNCED, the responsibilities that are avoided today will fall upon future generations in an order of magnitude that even the most forward looking individuals may not be able to forecast. In many instances, today's lack of responsibility will have far-reaching effects even on present generations.

17. Having considered the significant achievements of Member States, the need for even more significant efforts in the immediate future and the constraints to proper conservation, rational use and development of ocean and coastal area resources, it is suggested that the Commission on Sustainable Development:

(a) Calling the attention of the international community to the role of oceans and coastal areas as a major governing force of the planetary ecosystem, as well as a determining factor of human life, recommend that greater priority be accorded at national, regional and international levels to the action set out in chapter 17 of Agenda 21;

(b) Recognizing that the intersectoral nature of ocean and coastal areas requires them to be dealt with in a coherent manner, recommend that Governments adjust, as necessary, their administrative and policy structures in support of integrated planning and management, addressing cross-sectoral issues and promoting transparency and participation, including more effective participation of non-governmental organizations;

(c) Stressing the importance of the agreed international legislative and guiding frameworks for harmonious and sustainable development of the oceans, urge Governments to (i) ratify, as soon as possible, the United Nations Convention on the Law of the Sea; (ii) sign and ratify the Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks and, in the meantime, apply the Agreement provisionally; (iii) apply the Code of Conduct for Responsible Fisheries adopted by the FAO Conference in October 1995; (iv) accede to the FAO Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas; (v) ratify the 1992 Convention on Biological Diversity and apply the Jakarta Mandate on Coastal and Marine Biodiversity, adopted at the second session of the Conference of the Parties to the Convention on Biological Diversity in November 1995; and (vi) demonstrate greater commitment to implementing these instruments;

(d) Recognizing further the progress made during the post-UNCED process in developing international and regional standards and action plans relevant to the protection and management of coastal and marine environments and to the sustainable use and conservation of its resources, recommend that Governments: (i) continue to use existing mechanisms and forums to foster further progress; (ii) actively participate in regional action plans, programmes and other cooperative arrangements; and (iii) take advantage of international collaboration, particularly in the area of financing;

(e) Conscious of the importance of United Nations organizations and programmes in the process of implementation and in the spirit of the outcome of the Intergovernmental Conference to Adopt a Global Programme of Action for the Protection of the Marine Environment from Land-based Activities (Washington, D.C., 1995), recommend the further improvement and strengthening of the ongoing cooperation and coordination among the organizations and bodies of the United Nations system, in particular with the aim of:

(i) Promoting the implementation of a system-wide initiative on oceans using existing coordination mechanisms and the lead-agency concept widely accepted during the UNCED process;

(ii) Encouraging the development of system-wide, cooperative programme frameworks for activities requiring interdisciplinary and cross-sectoral planning and/or implementation (with priority to the development of such a programme framework for integrated coastal area management) and for education and training programmes in support of capacity-building;

(iii) Pursuing a system-wide approach to mobilizing funding and other resources for common issues, pooling resources where appropriate, particularly at the regional level.

IV. ACTION REQUIRED

18. It is suggested that the Commission on Sustainable Development agree on and call the attention of Governments, the United Nations system and major organizations and groups to the following actions to be taken at the national, regional and international levels to pursue further the implementation of chapter 17 of Agenda 21 towards the sustainable development of oceans and coastal areas.

Programme area A. Integrated coastal area management

19. In connection with programme area A:

(a) Governments are encouraged to develop plans for integrated coastal area management and, by extension, for management of EEZs, within national development plans, and to that end, among other means, to promote and facilitate human resources development through appropriate education and training, drawing upon the experience of such programmes as the TRAIN-SEA-COAST Programme of the United Nations/UNDP;

(b) Governments are asked to develop regional, national and/or local coral reef initiatives, using an ecosystem-based, integrated approach that encourages participation and includes programmes for community-based management or co-management of reef resources;

(c) States are asked to consider the development of appropriate administrative and legislative arrangements that would assign rights and duties (responsibilities) to coastal dwellers and users in order to regulate activities undertaken in the coastal zone, thus promoting the sustainable development of those areas;

(d) The respective governing bodies of the United Nations system should maximize the use of recently developed databases covering such areas as ICAM programmes, projects, courses, scientific data and information in order to improve coastal area planning and management in their respective areas;

(e) External support agencies are asked to encourage increased cooperation and coordination between agencies dealing with water resource issues and development organizations, arrangements or mechanisms, drawing on the successful recent experience of the Black Sea and the Red Sea programmes and using other available mechanisms such as the UNDP-World Bank local donor groups.

Programme area B. Marine pollution

20. In connection with programme area B:

(a) Governments should promote the establishment of self-sustaining financial mechanisms in support of, inter alia: (i) training of personnel; (ii) navigational safety and antipollution measures in international straits; (iii) waste reception facilities in ports; and (iv) salvage and emergency response facilities and capacity-building in hydrographic surveying and nautical charting. No officially sanctioned multilateral schemes along these lines have been adopted so far, although they have been under consideration in IMO and elsewhere for some time. Where appropriate, existing cooperation arrangements should be used (e.g. the UNCTAD/IMO/ILO Working Group on Coordination of Activities on Ports);

(b) Governments should address the need to develop, at the global level, a regulatory framework for offshore oil and gas extraction activities, using IMO as the most appropriate lead organization to undertake this task;

(c) Member States are urged to move towards early ratification of the newly adopted convention pertaining to standards of training, certification and watchkeeping for personnel on fishing vessels and amendments revising the 1978 International Convention on Standards of Training, Certification and Watchkeeping for Seafarers;

(d) Member States are advised that priority should be accorded to developing and implementing adequate measures to protect the marine environment from land-based sources and activities through: (i) effective participation in and implementation of the Global Programme of Action for the Protection of the Marine Environment from Land-based Activities; and (ii) strengthening existing arrangements and infrastructure within the United Nations system for quality control of marine pollution data and the relevant training and capacity-building at the national and regional levels - for example, the recently developed trilateral cooperation arrangement between UNEP, IAEA and IOC.

Programme areas C and D. Living marine resources

21. In connection with programme areas C and D:

(a) Governments and FAO are urged to establish and/or strengthen, as appropriate, subregional or regional fishery management organizations or arrangements to adopt and carry out conservation and management measures, particularly for transboundary and shared fishery resources;

(b) Governments should undertake to develop or strengthen national fishery management authorities, with the active participation of the fishing communities, in the context of integrated coastal fisheries management (ICFM);

(c) Governments are urged to reduce subsidies to the fishing industry and abolish incentives leading to over-fishing;

(d) Funding organizations, investment banks and donors should provide developing countries with the financial assistance required to support their efforts to make sustainable use of their resources (e.g. to start the process of effort-reduction, which should lead to improved biological and economic viability of fisheries);

(e) Governments are encouraged to draw from the potential offered by the enhancement of aquatic living resources in general, and by coastal aquaculture and ranching in particular, adopting a precautionary approach to development and sustainable practices;

(f) Governments are urged to respect agreed international management measures such as the Southern Ocean Whale Sanctuary established by IWC and the General Assembly resolutions on large-scale pelagic drift-net fishing.

Programme area E. Critical uncertainties

22. In connection with programme area E:

(a) Member States are encouraged to continue to strengthen the relevant national institutions and their infrastructures and to include, in particular, trained interdisciplinary expertise, promoting the development of the interface between research and the decision-making process and introducing ocean environmental subjects in school curricula at all levels;

(b) States are reminded of the need to ensure, through the provision of sufficient resources to national institutions, that ongoing and planned cooperative research on the oceans can be completed for the benefit of all;

(c) Member States are urged to make commitments to and to support, through their national institutions, the continued gradual establishment of the Global Ocean Observing System (GOOS), building on the existing systems so as to form a globally coordinated strategy to secure sufficient information for adequate management, forecasting and periodic scientific assessments of the state of the marine environment; the information produced should be comparable (i.e. quality controlled);

(d) Member States, United Nations organizations, and bilateral assistance and financing institutions should cooperate in strengthening the capability of national institutions to manage and use data and products derived from the systematic monitoring, especially through GOOS, of marine environmental changes and should commit themselves to high-level intergovernmental cooperation in the exchange of data and information;

(e) Member States are urged to take early action to strengthen their data and information management capabilities, including telecommunication aspects, so as to better contribute to and benefit from global observation and data exchange systems;

(f) Member States and their institutions are encouraged to contribute to global efforts to improve the assessment, monitoring and control of the impact of marine and coastal pollution on human health.

Programme area F: International cooperation and coordination

Regional level

23. In connection with programme area F, recalling that regional cooperation has been endorsed by UNCED as a priority vehicle for the implementation of Agenda 21, especially in regard to intersectoral domains, of which the oceans and coastal areas are prime examples:

(a) Regional bodies and organizations with mandates in areas relevant to the oceans and coastal areas are urged to reflect the provisions and priorities of chapter 17 of Agenda 21 in their respective programmes and work plans and to strengthen cooperation among their organizations, thus contributing to harmonizing their work on ocean and coastal-related matters;

(b) Donors are encouraged to give priority to proposals that facilitate regional cooperation, inter alia, through the United Nations regional commissions or through regional banks, especially those that support technical and institutional collaboration, with associated assistance to human and infrastructure development;

(c) The ACC Subcommittee on Oceans and Coastal Areas is invited to pay specific attention to monitoring and advising on the implementation of Agenda 21 (chap. 17) at the regional level. It should, inter alia: (i) identify gaps and opportunities for joint programmes as an impetus for regional cooperation, using chapter 17 as a joint framework; (ii) continue to use the lead-agency and associated-agency concepts, which have led to a rational division of responsibilities and the use of the competencies available in the United Nations system. In this connection, more active participation of the regional commissions in the work of the Subcommittee is envisaged. Moreover, the work of the Subcommittee could also benefit from more interaction with non-governmental organizations.

Global level

24. In connection with programme area F, the Commission may wish to:

(a) Urge Governments that have not yet established appropriate national policy mechanisms on oceans and coastal areas to do so in order that positions taken at the United Nations and its specialized agencies are harmonized;

(b) Suggest appropriate use by the Global Environment Facility (especially for its international waters and biodiversity components) of the competence

available in the specialized agencies of the United Nations system to support priority-setting, formulation of proposals and project execution, for fuller implementation of chapter 17;

(c) Encourage an intensified use of existing mechanisms for inter-agency cooperation that are viewed as being particularly effective - coordination mechanisms such as the Intersecretariat Committee on Scientific Programmes Relating to Oceanography (ICSPRO) and the ACC Subcommittee on Oceans and Coastal Areas; joint advisory groups such as GESAMP (the IMO/FAO/UNESCO-IOC/WMO/WHO/IAEA/UN/UNEP Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection); joint programmes such as GIPME (Global Investigation of Pollution in the Marine Environment); and agreements through memorandums of understanding as a framework for issue-oriented action at all levels;

(d) Encourage the private sector and Governments to explore jointly opportunities for mutually beneficial partnerships with regional organizations and United Nations organizations in connection with the implementation of chapter 17 of Agenda 21;

(e) Encourage Governments, in closer cooperation with non-governmental organizations and major groups, to participate in activities to increase awareness of the impact of the oceans and coastal areas on the life of our planet, including those to be organized within the context of the International Year of the Ocean in 1998.

Financial implications of action required

25. Bearing in mind that (a) the implementation of chapter 17 of Agenda 21 will require a substantial increase in funding for the oceans and coastal regions, about 90 per cent of which will have to come from national sources (public and private); (b) the costs of not taking appropriate action, as reflected, for example, in the cost of over-fishing (over US$ 50,000 million per year) or in the recent outbreaks of diseases in Asian shrimp culture (hundreds of millions of dollars), have become unsustainable; and (c) the catalytic effect of initiatives undertaken through the United Nations system, which has already shifted resources towards the implementation of Agenda 21, with effective results:

(a) Governments of both developed and developing countries are urged to renew and increase their commitment to chapter 17 of Agenda 21 and to commit local resources for its implementation (particularly using user charges, taxes, etc.) in order to cover the immediate costs of the conservation and management of natural resources and foster development sustainability;

(b) Donor Governments should consider increasing their financial support to the initiatives undertaken by developing countries and countries with economies in transition, through bilateral and multilateral channels, for national, regional (including support to regional organizations) and global programmes. In particular, they are urged to enhance their contribution to the Global Environment Facility (GEF), which has become a critical funding source,

especially in regard to the ocean-related activities under the international waters and biodiversity components, as reflected in the 1995 operational strategy for GEF.

Notes

1/ United Nations Conference on Environment and Development, Rio de Janeiro, 3-14 June 1992, vol. I, Resolutions Adopted by the Conference (United Nations publication, Sales No. E.93.I.8 and corrigendum), resolution 1, annex II.

2/ Ibid., para. 17.1.

3/ Official Records of the Third United Nations Conference on the Law of the Sea, vol. XVII (United Nations publication, Sales No. E.84.V.3), document A/CONF.62/122.

4/ See the report of the Secretary-General on the law of the sea (A/50/713 of 1 November 1995) and the January 1996 update (internal).

5/ A more extensive listing of achievements is given in the addendum to this report. It should be noted that detailed information on achievements at the national level has not yet become available through the process of national reporting and could not be included in this report or the addendum.

6/ Report of the Fourth World Conference on Women, Beijing, 4-15 September 1995 (A/CONF.177/20), chap. I, resolution 1, annexes I and II.